

REMARKS

This application has been carefully reviewed in light of the Office Action dated April 6, 2005 and the Advisory Action dated August 10, 2005. Claims 1 to 95 and 97 to 102 are pending in the application. Claims 1, 2, 5, 36, 38, 40, 41, 48, 49, 52, 83, 85, 87, 88, 97, 99 and 101 have been amended, and Claims 1, 48, 97, 99 and 101 are in independent form. Reconsideration and further examination are respectfully requested.

Applicants received an Office Communication dated November 28, 2005, which denied Applicants' request for suspension of action submitted in the Request For Continued Examination (RCE) dated October 6, 2005. In particular, it was alleged that the RCE was not accompanied by a submission.

In this regard, Applicants respectfully submit that the intended submission for the October 6, 2005 RCE was the Response To Final Office Action dated July 21, 2005.

Applicants also wish to thank the Examiner for the courtesies and thoughtful treatment accorded Applicants' representatives during the November 7, 2005 personal interview. The undersigned also confirms receipt of the Examiner's Interview Summary (Form PTOL-413).

In this regard, Applicants respectfully submit that the Interview Summary is not seen to accurately reflect the outcome and/or substance of the interview, and that the following description is a more accurate reflection of the interview.

During the interview, the Examiner and Applicants' representatives discussed the art of record, particularly U.S. Patent No. 5,737,489 (Chou) and U.S. Patent

No. 6,662,180 (Aref). Applicants' representatives argued that Chou is not seen to disclose or suggest the claimed feature that a measure of similarity is obtained by comparing a recognized sequence of labels with a stored sequence of labels by using a combination of two pieces of information: predetermined confusion data which defines confusability between different labels, and generated confidence data.. However, the Examiner continued to rely on the equations in Chou's column 8, and specifically alleged that the $g()$ function corresponds to the claimed confidence data and that the $G()$ function corresponds to the claimed confusion data. Applicants' representative further attempted to distinguish Chou's $g()$ function and $G(\text{function})$ from the claimed invention, but the Examiner maintained his position. Accordingly, no agreement was reached during the interview.

Turning to the Office Action, Applicants thank the Examiner for the indication that Claims 6 to 19, 26 to 29, 40 to 45, 47, 53 to 66, 74 to 76, 87 to 89, 91, 92, 94 and 95 would be allowable if rewritten in independent form, including all of the limitations of the base claims. Applicants have chosen not to rewrite these claims at this time since the base claims for each of Claims 6 to 19, 26 to 29, 40 to 45, 47, 53 to 66, 74 to 76, 87 to 89, 91, 92, 94 and 95 are believed to be allowable for at least the reasons set forth below.

Claims 1 to 5, 21 to 25, 30 to 32, 37 to 39, 48 to 52, 68 to 73, 77 to 79, 84 to 86, 90, 97, 99 and 101 were rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 5,737,489 (Chou); Claims 20, 35, 36, 46, 67, 82, 83, 93, 98, 100 and 102 were rejected under 35 U.S.C. § 103(a) over Chou in view of U.S. Patent No. 6,662,180 (Aref); and Claims 33, 34, 80 and 81 were rejected under 35 U.S.C. § 103(a) over Chou in view of U.S. Patent No. 5,333,275 (Wheatley). Reconsideration and withdrawal are respectfully

requested.

Referring specifically to the claims, independent Claim 1 as amended is directed to a comparison apparatus. The apparatus includes a receiver operable to receive an input signal, and a recognition processor operable to compare the input signal with stored label models to generate a recognized sequence of labels in the input signal and confidence data representative of the confidence that the recognized sequence of labels is representative of the input signal. The apparatus also includes a similarity measure calculator operable to compare the recognized sequence of labels received from the recognition processor with a stored sequence of annotation labels using a combination of i) predetermined confusion data which defines confusability between different labels, and ii) the confidence data received from the recognition processor and representative of the confidence that the received recognized sequence of labels is representative of the input signal, to provide a measure of the similarity between the recognized sequence of labels and the stored sequence of annotation labels.

Independent Claims 48, 97, 99 and 101 are respectively directed to a method, storage medium, processor implementable instructions and an apparatus which are seen to generally correspond to Claim 1.

A feature of the present invention therefore lies in obtaining a measure of similarity between a recognized sequence of labels and a stored sequence of annotation labels, by comparing the recognized sequence of labels with the stored sequence of annotation labels. The applied references of Chou, Aref and Wheatley are not seen to disclose or suggest at least this feature.

As understood by Applicants, Chou discloses a speech recognition system in which a recognition processor receives an unknown utterance signal as input. In response the recognition processor accesses a recognition database and scores the utterance signal against recognition models in the recognition database to classify the unknown utterance and to generate a hypothesis speech signal. A verification processor receives the hypothesis speech signal as input to be verified. The verification processor accesses a verification database to test the hypothesis speech signal against verification models reflecting a preselected type of training stored in the verification database. Based on the verification test, the verification processor generates a confidence measure signal. The confidence measure signal can be compared against a verification threshold to determine the accuracy of the recognition decision made by the recognition processor. See Chou, Abstract; column 4, lines 34 to 51; and Figure 1.

Although Chou may be seen to disclose that an utterance signal is scored against recognition models to generate a hypothesis speech signal, and that the hypothesis speech signal is tested against verification models to generate a confidence measure signal, nothing in Chou is seen to disclose or suggest making a comparison with a stored sequence of "annotation" labels. As such, Chou is not seen to disclose or suggest obtaining a measure of similarity between a recognized sequence of labels and a stored sequence of annotation labels, by comparing the recognized sequence of labels with the stored sequence of annotation labels.

In addition, Aref and Wheatley have been reviewed and are not seen to compensate for the deficiencies of Chou.

Accordingly, based on the foregoing amendments and remarks, independent


Claims 1, 48, 97, 99 and 101 as amended are believed to be allowable over the applied references.

The other claims in the application are each dependent from the independent claims and are believed to be allowable over the applied references for at least the same reasons. Because each dependent claim is deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

No other matters being raised, it is believed that the entire application is fully in condition for allowance, and such action is courteously solicited.

Applicants' undersigned attorney may be reached in our Costa Mesa, California office by telephone at (714) 540-8700. All correspondence should be directed to our address given below.

Respectfully submitted,



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